REMARKS

Status Summary

In this Amendment, no claims are canceled, and claims 15-24 are added. Therefore, upon entry of this Amendment, claims 1-24 will be pending.

Amendments to the Specification

The specification has been amended to correct informalities. The amendments to the specification do not add any new matter.

Claim Rejections 35 U.S.C. § 102

Claims 1-12 and 14 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,308,075 to Irten et al. (hereinafter, "Irten"). This rejection is respectfully traversed.

Independent claims 1 and 9 have been amended to recite that the routing address translation used to locate a routing address for a message is based on an originating mobile identification number located in the mobile application part of the message. For example, in independent claim 1, a received message includes a mobile application part having an originating mobile identification number. An entity type is determined for the message based on the SCCP part of the message. If the entity type indicates that the message is destined for a short message service center, a lookup is performed in an address translation database using the originating mobile identification number to locate an address for the one of SMSCs. A similar amendment has been made to claim 9.

As illustrated in Figure 12 and as explained on page 37, line 20 through page 40, line 4 of the present specification, one problem with routing SMS messages is that the entity address of a particular SMSC is hard coded into mobile handsets. Accordingly, when a service provider desires to add a new short message service center, there is no mechanism for rerouting the SMS messages originating from a particular handset to the new short message service center because the handset is hard-coded with the original SMSC address.

Independent claims 1 and 9 solve this problem by performing an address translation based on the originating mobile identification number located in the MAP portion of the message, rather than the entity address located in the SCCP portion of the message. Support for the claim amendment that indicates that the originating mobile identification number is used is found, for example on page 38, lines 7-14 of the present specification. The originating MIN is used to locate a routing address for an SMSC, and the fixed association between handsets and short message service centers can be avoided.

There is no teaching or suggestion in Irten of a method or a flexible routing node that translates an originating MIN extracted from the MAP portion of the message into a short message service center address. The Examiner correctly notes that Irten discloses performing MIN to MC global title translation. (See for example column 2, line 6 and column 3, line 49 of Irten.) However, the MIN referred to Irten is the destination MIN. For example, Irten states:

> Otherwise, a global title translation is attempted for MC **10** routing (20i), and if successful the message will be forwarded to the destination's home

> MC using the destination address and MIN to MC translation. (Emphasis added.) (See column 3, lines 35-39 of Irten.)

From this passage, Irten teaches that the destination MIN is used to perform the translation, because the passage indicates that global title translation is used to locate the destination's home MC. A global title translation to locate the destination's home MC is necessarily performed based on a destination global title address, such as a destination MIN. Similarly, the MIN to MC translation referred to in column 2 of Irten also refers to translation of the destination address. This portion of Irten refers to another publication, Gallagher and Snyder, Mobile Telecommunications Networking with IS-41 (McGraw Hill 1997). For the Examiner's convenience, the portion of that publication that relates to routing SMS messages is attached hereto. On page 299, the publication states:

> In this case, the serving system creates a global title address containing the SMS destination parameter value and requests a MIN to MC global title translation.

From this passage, the translation referred to is a global title translation that is based on the destination message center address. There is absolutely no teaching or suggestion of performing a global title translation or any other type of address translation based on the originating address. Accordingly, it is respectfully submitted that the rejection of claims 1 and 8 and their dependent claims as anticipated by Irten should be withdrawn.

Claim Rejections 35 U.S.C. § 103

Claim 13 was rejected as unpatentable over Irten. Claim 13 depends from claim 8. As stated above, Irten fails to teach or suggest translated an originating mobile

identification number to a destination address as claimed in claim 8. Accordingly, it is respectfully submitted that claim 13 is patentable over Irten for the same reasons as claim 8.

New Claims

New dependent claims 15-22 are added. Support for new claims 15-22 is found, for example, in Figure 12 and on page 37, line 10 through page 40, line 4 of the present specification. New claims 15-22 are patentable over Irten for the same reasons stated above with regard to the corresponding independent claims, and, in addition, for the elements recited therein.

New independent claim 23 is also added. New independent claim 23 is directed to a network element having a range-based database and an exception-based database and that routes SMS messages. Support for new claim 23 is found, for example, in Figures 9A and 9B and on page 37, line 10 through page 40, line 4 of the present specification.

New claim 23 is patentable over Irten because Irten does not disclose any database structures for routing table **14d**, not to mention a database structure that includes a range-based database and an exception-based database. In addition, Irten indicates that routing is first attempted based on the point code and subsystem number of the destination's home MC. If that routing step fails, a global title translation is performed. (See column 3, lines 32-39 of Irten.) There is no disclosure of performing a lookup based on the MIN from the MAP portion of the message in an exception-based database, and if the lookup fails to locate a matching record, performing a lookup in a

range-based database. Accordingly, for these reasons, it is respectfully submitted that new claim 23 is patentable over Irten.

New independent claim 24 is directed to a method for routing SMS messages that includes performing a first lookup using a MIN from the MAP portion of the message. If this lookup results in a matching entry, an SMSC entity address extracted from a matching entry is inserted in the SCCP called party address field of the message, and the message is routed to a the SMSC corresponding to the inserted entity address. As a result, the fixed association between SMSCs and mobile handsets is eliminated. If the first lookup fails to result in a matching entry, a second lookup is performed based on the original SMSC entity address in the SCCP portion of the message and the message is routed to the corresponding SMSC. Support for new claim 24 is found, for example on page 37, line 10 through page 40, line 4 of the present specification.

New claim 24 is patentable over Irten because Irten teaches a completely different routing address translation method. For example, rather than performing a first lookup using the MIN from the MAP, inserting a new SMSC entity address in the SCCP called party address field if the lookup is successful, and performing a second lookup using the original entity address in the SCCP portion of the message if the first lookup is not successful, Irten indicates that routing is first attempted based on the point code and subsystem number of the destination's home MC. If that routing step fails, a global title translation is performed. (See column 3, lines 32-39 of Irten.) There is no disclosure of performing a first lookup based on the MIN from the MAP portion of the message, inserting a new SMSC entity address in the SCCP called party address field if the first

lookup is successful, and if the first lookup fails to locate a matching record, performing a second lookup using the SMSC entity address in the SCCP portion of the message. Accordingly, for these reasons, it is respectfully submitted that new claim 24 is patentable over Irten.

CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and such action is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. **50-0426**.

Respectfully submitted,

JENKINS, WILSON & TAYLOR, P.A.

Date: December 29, 2004 By: _____

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Enclosures